Long-Term Stewardship Assessment Report

Hawkins Point Hazardous Waste Landfill

EPA ID #: MDD000731356

Baltimore, Maryland 21226

Assessment Date: March 27, 2018

Report Date: April 19, 2018

Introduction: Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e, ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

Site Background: Hawkins Point Hazardous Waste Landfill (Facility) is located in the Curtis Bay Industrial Area at 5501 Quarantine Road near the southern Baltimore City limits. The Facility is bordered by Thomas Cove to the east and industrial properties to the west including two closed landfills. Surrounding land is zoned primarily for heavy industrial use and there are no residences within 1,000 feet of the Facility boundary.

The 67-acre Facility was purchased by the Maryland Department of Transportation Maryland Port Administration (MDOT MPA) from the United States Government in 1958 and developed as a landfill for chrome-ore processing residue (COPR) from the Former Allied Signal, Inc. Baltimore Works Plant. In 1979, Maryland Environmental Services (MES) began operating the Facility for the owner, MDOT MPA. MES is a not-for-profit public corporation that provides services to government and private sector clients. The Facility is divided into four areas: Areas 2, 3, 4 and 5. Hazardous wastes were accepted at the Facility from 1975 until 1995. MDOT MPA has leased Area 1 to Eastalco since 1968 and was never part of the landfill. Areas 2 and 3 comprise of Landfill A. Area 4 contained two temporary leachate-holding lagoons during the construction of Landfill B at Area 5, but was never used for landfilling operations and does not include any hazardous materials. An aerial map is attached as **Figure 1**.

Current Site Status: In May 2013, EPA issued the Final Decision and Response to Comments (FDRTC). The final remedy determination is Corrective Action Complete with Controls. Controls include land use restrictions, maintenance of the Facility's landfill caps, operation and maintenance of the Facility's leachate collection system and the continued implementation of a groundwater

monitoring program. The final remedy detailed in the FDRTC is implemented through renewed Controlled Hazardous Substance (CHS) Facility Permit No. A-264 between Maryland Department of the Environment (MDE) and MES dated December 10, 2012 (Permit). The facility remains under continued use for maintenance, operation and monitoring purposes required by MDE and EPA.

Long-term Stewardship Site Visit: On March 27, 2018, EPA conducted a long-term stewardship site visit with MDE, MDOT MPA and MES representatives to discuss and assess the status of the implemented remedies at the site.

The attendees were:

Name	Organization	Email Address	Phone No.
John Hopkins	EPA Region 3	hopkins.john@epa.gov	(215)814-3437
Albert Simkins	Maryland Department of the Environment	albert.simkins@maryland.gov	(410)537-3402
Bill Richardson	Maryland Department of Transportation Maryland Port Administration	wrichardson@marylandports.com	(410)633-1145
Josette Markline	Maryland Environmental Services	jmark@menv.com	(410)729-8205
Aimee Warner	Maryland Environmental Services	awar@menv.com	(410)729-8309

Institutional Controls (ICs) Status:

Deed Restriction: On February 23, 1983, a Deed Restriction was placed for the property which prohibits construction unless written approval is given by MDE. There were no signs of construction or other earth-moving activities at the time of the site visit. The Deed Restriction can be found here.

Deed Notice: Pursuant to MDE regulations, MES has placed a notice in the chain of title for the property and attached a survey of the areas where waste will remain in place. This requirement provides notice to any successor-in-interest of the existence of the landfill, in the event of a conveyance of an interest in the property.

Controlled Hazardous Substance Facility Permit: The Permit is the method for implementing institutional and engineering controls required as a condition of the Statement of Basis and Final Decision. The following ICs apply to the Hawkins Point Hazardous Waste Landfill facility, shown on **Figure 1**:

Land Use Restriction: The Property shall not be used for residential purposes or in any way that will adversely affect or interfere with the integrity and protectiveness of the landfill caps; the leachate collection and removal system, and groundwater monitoring wells. There were no residential structures observed at the time of the visit. The Facility remains under its continued use; strictly for maintenance, operation and monitoring activities required by MDE and EPA.

Engineering Controls (ECs) Status:

Security: The Facility is secured with a perimeter fence, locked gateway, surveillance cameras, and Maryland Transportation Authority (MDTA) police officers who patrol the area daily.

Landfill A Cover: From 1975 to 1979, Areas 2 and 3 (Landfill A) received COPR which was disposed of in three clay-lined cells until its closure in 1980. Landfill A has a vegetative cover and swales which discharge overland surface water flow to Thomas Cove. MES has maintained the integrity and effectiveness of the vegetative cover by mowing regularly. No plants with deeply penetrating root systems or erosion of the cover were observed. Surface water collection swales were also in good condition with no signs of ponding.

Landfill B Cover: Area 5 (Landfill B), comprised of 10 waste cells, was used for the disposal of approximately 451,450 tons of COPR and demolition debris from the former AlliedSignal, Inc. facility until 1993. MES completed closure activities on May 20, 1994. In August 2015, the existing vegetative cover was replaced with a new geosynthetic cover. As a result, the amount of leachate collected at Landfill B has been significantly reduced. MES has maintained the integrity and effectiveness of the geosynthetic cover. Swales were also in good condition. There were no plants with deeply penetrating root systems or erosion of the cover observed. Surface collection water swales were in good condition. Also, landfill piezometers wells were well maintained.

Leachate Collection System: Since 1999, MES has been permitted to store the landfill leachate in a 21,573-gallon aboveground tank, where all leachate collected at the Facility is combined, including leachate from Areas 2, 3, and 5. The leachate is conveyed via underground lines to an underground collection vault, from where it is then pumped into the aboveground storage tank. Leachate is then transported offsite by a licensed hauler to Envirite of Pennsylvania RCRA-permitted treatment facility, located at 730 Vogelsong Road, York, PA for treatment and disposal. MES estimates that leachate loads (approximately 20,000 gallons) have decreased from about 4-5 times per week to 2-3 times per week. The newly installed geosynthetic cover at Landfill B has help to reduce infiltration of precipitation and surface water.

Groundwater Monitoring: There are twelve (12) active groundwater monitoring wells onsite. In general, groundwater flow follows elevation contours from east to west. For the purposes of groundwater characterization, the wells are divided into two subsets of semi-annual quadruplicate wells and one set of semi-annual wells.

Semi-Annual Quadruplicate Compliance Wells						Semi-Annual Compliance Wells					
Landfill B						Landfill A					
Area 5 Wells			Trough Area/Area 4 Wells			Areas 2 & 3 Wells					
2B	2D	2F	2E	2G	2H	R	S	Y	M	W	Z

Wells in Area 5 and the Trough Area/Area 4 are sampled four times within six months. Wells in Areas 2 and 3 are sampled once every six months. Groundwater at the Facility is analyzed total chromium, hexavalent chromium, iron, manganese, sulfate, barium, chloride, and pH. The latest 2nd semi-annual 2017 results suggest that groundwater contaminant concentrations are stable in most wells. However,

groundwater concentrations exceeded the Maximum Concentration of Constituents for Groundwater Protection (MCs) for total chromium, which is 50 ug/L, during four different monitoring events. On July 12th, August 16th, September 20th, and October 24th, 2017 samples from well 2D had total chromium concentrations of 416 ug/L, 1,600 ug/L, 1,450 ug/L and 1950 ug/L, respectively. A statistical analysis preformed indicated a statistically significant increase (SSI) for chromium at Well 2D for the latest semi-annual event. It is believed that the root cause of the SSI was addressed with the new geosynthetic landfill cover at Landfill B.

Wells in the Landfill B area are also sampled for Volatile Organic Compounds (VOCs) once each year and were last sampled on July 17, 2017. All exceedances were for benzene, which has a Maximum Contaminant Level (MCL) of 5 ug/L. Benzene concentrations at 2B, 2E and 2H were 8.7 ug/L, 6.2 ug/L and 6.2 ug/L, respectively.

Financial Assurance: Financial assurance is not required for this site.

Reporting Requirements/Compliance: Pursuant to the Permit, MES is required to submit semi-annual groundwater monitoring reports. There are no issues of noncompliance regarding reporting requirements as MES has submitted a report each year, the last of which was received December 15, 2017. Copies of inspection reports, as well as maintenance, transport and disposal records are kept onsite. No transfer of property, change in use of the property, or work that will affect contamination at the property has been reported.

Mapping: The EPA facility website map is accurate and includes the 67-acre Hawkins Point Property. The map was field verified and no issues were noted. A downloadable geospatial PDF map is available on EPA's corrective action facility webpage under the "Reports, Documents and Photographs" section, found here.

Conclusions and Recommendations: It was recommended to place a new padlock on the North side of the security fence. MES followed up with a picture of the new lock and fence via email on March 27th, 2018. No other EC/IC deficiencies were identified. EPA has determined that the remedy institutional and engineering controls have been fully implemented.

Attachments:

Figure 1: Aerial Map of Hawkins Point Hazardous Waste Landfill

Picture 1: New Padlock on Security Fence

Picture 2: Monitoring Well 2E

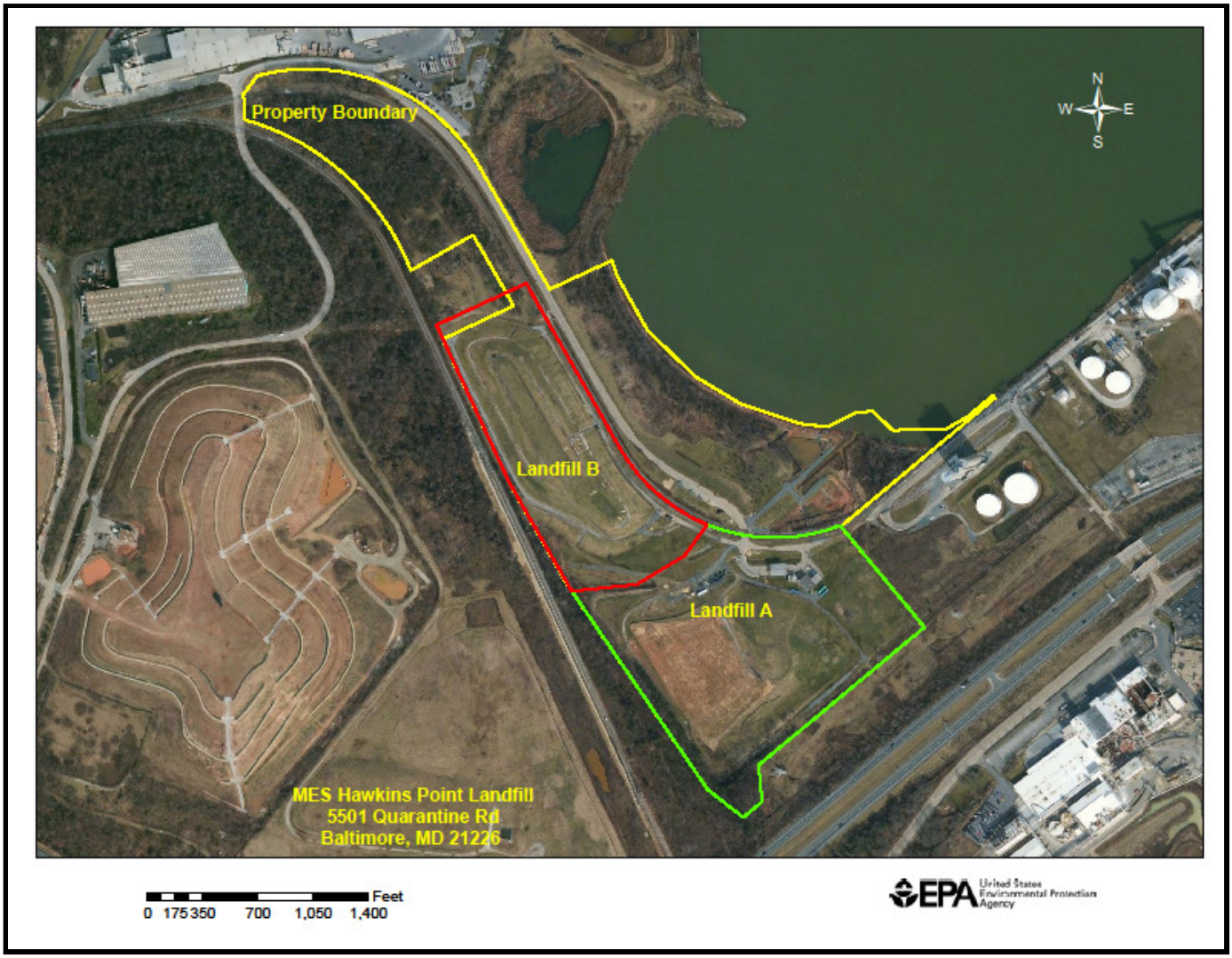
Picture 3: Monitoring Well 2G

Picture 4: Landfill A Area

Picture 5: Top of Landfill B with Piezometer Well

Picture 6: Landfill B East Side Swale

Figure 1: Aerial Map of Hawkins Point Hazardous Waste Landfill



Picture 1: New Padlock on Security Fence

Picture 2: Monitoring Well 2E

Picture 3: Monitoring Well 2G

Picture 4: Landfill A Area

Picture 5: Top of Landfill B with Piezometer Well

Picture 6: Landfill B East Side Swale